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**TRANSMITTAL
FORM**

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Application Number

10/759,581

Filing Date

January 16, 2004

First Named Inventor

Yamagami, Kenji

Art Unit

2157

Examiner Name

Ario Etienne

Attorney Docket Number

16869B-089600US

ENCLOSURES (Check all that apply)☐

Fee Transmittal Form

☐

Fee Attached

☐

Amendment/Reply

☐

After Final

☐

Affidavits/declaration(s)

☐

Extension of Time Request

☐

Express Abandonment Request

☐

Information Disclosure Statement

☐

Drawing(s)

☐

Licensing-related Papers

☒

Petition

☐Petition to Convert to a
Provisional Application☐Power of Attorney, Revocation
Change of Correspondence Address☐

Terminal Disclaimer

☐

Request for Refund

☐

CD, Number of CD(s) _____

☐

Landscape Table on CD

☐

After Allowance Communication to TC

☐Appeal Communication to Board
of Appeals and Interferences☐Appeal Communication to TC
(Appeal Notice, Brief, Reply Brief)☐

Proprietary Information

☐

Status Letter

☒Other Enclosure(s) (please identify
below):

Return Postcard

☐Certified Copy of Priority
Document(s)☐Reply to Missing Parts/ Incomplete
Application☐Reply to Missing Parts
under 37 CFR 1.52 or 1.53

Remarks

The Commissioner is authorized to charge any additional fees to Deposit
Account 20-1430.**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name

Townsend and Townsend and Crew LLP

Signature

Printed name

George B. F. Yee

Date

August 22, 2006

Reg. No.

37,478

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

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Cynthia McKinley

Date

August 22, 2006



PATENT
Attorney Docket No.: 16869B- 089600US
Client Ref. No.: HAL-ID 284

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Kenji Yamagami

Application No.: 10/759,581

Filed: January 16, 2004

For: Method and Apparatus for Limiting
Access to a Storage System

Customer No.: 20350

Confirmation No. 7975

Examiner: Ario Etienne

Technology Center/Art Unit: 2157

PETITION TO MAKE SPECIAL FOR
NEW APPLICATION PURSUANT TO
37 C.F.R. § 1.102(d) &
M.P.E.P. § 708.02, Item VIII,
ACCELERATED EXAMINATION
(RENEWED)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

A petition to make special the above-identified application in accordance with MPEP § 708.02, Item VIII, accelerated examination was mailed July 28, 2005. The petition was dismissed in a communication mailed July 19, 2006. This renewed petition is submitted herewith for consideration. The application has not received any examination by the Examiner.

It is understood that a Petition Fee is not required, as this is a renewed Petition. However, the Commissioner is authorized to charge any fees to Deposit Account No. 20-1430 that may be associated with this petition.

(A) The Commissioner is authorized to charge the petition fee of \$130 under 37 C.F.R. § 1.17(h), and any additional fees that may be associated with this petition may be charged to Deposit Account No. 20-1430.

(B) All the claims are believed to be directed to a single invention. If the examiner determines that all the claims presented are not obviously directed to a single invention, then Applicant will make an election without traverse as a prerequisite to the grant of special status where the specific grouping of claims will be determined by the examiner.

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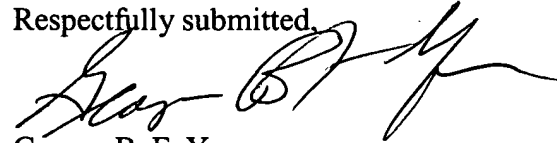
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in independent claims 13, 22, and 32. Fujita, likewise, does not teach or suggest that “subsequent data communication is permitted in the case of a positive response, and subsequent data communication is prevented in the case of a negative response,” as recited in claim 1 and similarly in independent claims 13 and 32.

Conclusion

In view of the comments presented in the instant petition, the Examiner is respectfully requested to issue a first Office Action at an early date.

Respectfully submitted,



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(C) A pre-examination search was performed by an independent patent search firm. The pre-examination search includes a classification search, a computer database search, and a keyword search. The classification search covered the following classes and subclasses:

Class	Subclass
707	9, 10, 201
709	216, 219, 225, 229, 232
711	111-114, 154, 163, 164, 167-169
714	47

Additionally, a keyword search was performed on the USPTO full-text database, including published applications. The following references were identified in the search report:

- (1) U.S. Patent Nos.:
- | | |
|--------------|-------------------|
| US 6,404,975 | Bopardikar et al. |
| US 6,438,648 | McKean et al. |
| US 6,507,849 | Choudhary |
| US 6,604,153 | Imamura et al. |
- (2) U.S. Patent Application Publication Nos.:
- | | |
|-----------------|----------------|
| US 2003/0182330 | Manley et al. |
| US 2003/0028514 | Lord et al. |
| US 2003/0163457 | Yano et al. |
| US 2003/0204597 | Arakawa et al. |
| US 2003/0225982 | Fujita et al. |

(D) The above references have been submitted in the July 28 petition, and thus are already of record.

(E) Set forth below is a detailed discussion of the references, pointing out with particularity how the claimed subject matter recited in the claim.

Claimed Subject Matter of the Present Invention

There are four independent claims 1, 13, 22, and 32 among the 33 claims that are pending in the instant application.

The claims are directed to methods for processing requests in a storage device. For example, independent claim 1 substantively recites in part “receiving a connection request from a sending device, obtaining manufacture-related information associated with the sending device, and responding in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table.” See also independent claims 13, 22, and 32 which recite similar limitations.

Independent claim 1 further substantively recites in part that “subsequent data communication is permitted in the case of a positive response, and subsequent data communication is prevented in the case of a negative response.” See also independent claims 13 and 32 which recite similar limitations.

U.S. Patent No. 6,404,975 Bopardikar et al.

The patent to Bopardikar et al. discloses video storage where video data in the form of a plurality of digitised frames, is stored on a plurality of magnetic disks. Each image frame is striped across a plurality of disks and redundant parity information, derived from the stripes, is written to an additional disk. Disk failure is detected and in response to this detection missing data is regenerated from the parity information. This allows the transfer of video data in real time to be maintained for output so that the system remains operational. While data is being read in real time, derived-from regenerated data, the regenerated data is written to an operational disk, thereby reprotecting the data in the event of a subsequent failure. Frame supplied to output are labelled as being protected or unprotected and application programs may respond to this status information as considered appropriate. Data is transferred in accordance with PCI protocols. The PCI environment includes a primary PCI bus and a secondary PCI connected to the primary via PCI bridges. Each bridge includes a set of configuration registers residing with it's assigned range of two hundred and fifty six configuration locations to permit tailoring of the bridge's functionality. With reference to FIG. 19, the first sixty four configuration registers are

set aside for a predefined configuration header, including a device identification, a vendor identification, a status register and a command register. (See, e.g., Abstract, column 17, lines 50-54, and column 18, lines 30-37).

There is no discussion in Bopardikar about “receiving a connection request from a sending device,” as recited in claim 1 and similarly in independent claims 13, 22, and 32. Bopardikar does not disclose “obtaining manufacture-related information associated with the sending device,” as recited in claim 1 and similarly in independent claims 13, 22, and 32. Though Bopardikar describes labeling video frames as being protected or unprotected so that application programs may respond to this status information as considered appropriate, he does not show an access control table having manufacture-related information. Bopardikar therefore does not teach “responding to the request in a positive manner or in a negative manner based on comparing the sender’s manufacture-related information against manufacture-related information in an access control table,” as substantively recited in claim 1 and similarly in independent claims 13, 22, and 32.

Moreover, Bopardikar does not teach or suggest that “subsequent data communication is permitted in the case of a positive response, and subsequent data communication is prevented in the case of a negative response,” as recited in claim 1 and similarly in independent claims 13 and 32.

U.S. Patent No. 6,438,648 McKean et al.

The patent to McKean et al. discloses a system apparatus and method for managing multiple host computer operating requirements in a data storage system. Whenever a controller receives a message that includes a particular target ID and a particular computer's operating requirements with respect to the operation of the plurality of logical units mapped across a plurality of disk storage devices, the controller stores one set of the particular computer's operating requirements per target ID per logical unit. Each host computer in a data storage system that has substantially similar operating requirements uses the same target ID in any I/O requests to a controller. Subsequently, whenever the controller processes an I/O request from any computer that uses the particular target ID, the controller will use the particular set of the

operating requirements to configure the operation of each of the logical units. To configure a computer to use a particular target ID, the Administrator will use existing techniques for attaching a storage peripheral (controller and disk drives) to a host computer. A group's particular target ID 2-N is unique, even though each computer in a respective group uses the same unique target ID 2-N, because each computer in a respective group uses a different target ID 2-N as compared to any other computer in any other group. (See, e.g., Abstract and column 6, lines 7-33).

McKean describes a controller that receives a message including a particular target ID and a particular computer's operating requirements. Then, whenever the controller processes an I/O request from any computer that uses the particular target ID, the controller will use the particular set of the operating requirements to configure the. McKean's target ID is not manufacturer-related information. This sequence described by McKean therefore does not constitute "obtaining manufacture-related information associated with the sending device, and responding in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table," as substantively recited in claim 1 and similarly in independent claims 13, 22, and 32.

Since McKean's controller uses the target ID to configure operation of a logical unit, McKean therefore does not teach that "data communication is permitted in the case of a positive response, and data communication is prevented in the case of a negative response," as recited in claim 1 and similarly in independent claims 13 and 32.

U.S. Patent No. 6,507,849 Choudhary

The patent to Choudhary discloses techniques for accessing a data storage system having both a file system and directory system. In one arrangement, an apparatus has memory that stores an application, and a controller coupled to the memory. The controller operates in accordance with the application stored in the memory to access a data storage system. In particular, the application configures the controller to obtain an access instruction which identifies a portion of the data storage system, and determine, in response to the obtained access instruction, whether the identified portion of the data storage system is a file of the file system or

a directory entry of the directory system. The application further configures the controller to perform a file access operation to access the identified portion as a file when the identified portion is determined to be a file of the file system, and a directory entry access operation to access the identified portion as a directory entry when the identified portion is determined to be a directory entry of the directory system. Since the apparatus is capable of determining whether the access instruction identifies a file of a file system or a directory entry of a directory system, application developers need not be concerned about the availability of any particular vendor-specific APIs. Rather, the application developers can simply use an access instruction with a common syntax and expression such as that for accessing a file of UNIX file system (e.g., open(), read(), write(), etc.), and let the apparatus determine how to handle such instructions. (See, e.g., Abstract).

Choudhary's controller does not receive a connection request from a sending device where it then "obtains manufacture-related information associated with the sending device, and responds in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table" to the sending device, as substantively recited in claim 1 and similarly in claims 13, 22, and 32. Choudhary is likewise silent as to "subsequent data communication being permitted in the case of a positive response, and subsequent data communication is prevented in the case of a negative response."

U.S. Patent No. 6,604,153 Imamura et al.

The patent to Imamura et al. discloses access protection from unauthorized use of memory medium with storage of identifier unique to memory medium in data storage device. It is provided a data storage device which reads data from and/or writes data to a memory medium, comprising: a storage unit for storing a first identifier; an identifier acquisition unit for acquiring a second identifier recorded on a memory medium which is set to said data storage device; and a controller for comparing said first identifier with said second identifier, and controlling to access to said memory medium for data reading and/or writing according to a relationship between said first identifier and said second identifier. For example, when the first identifier does not match the second identifier, the controller inhibits access to the memory medium for the reading and

writing of data. But when the first and the second identifiers match, the controller permits access to the memory medium for the reading and writing of data. Since the storage device having an identifier which differs from the identifier recorded on the memory medium inhibits access to the memory medium for the reading and writing of data, the secrecy of data recorded on the memory medium is ensured. The first identifier and the second identifier are identifiers inherent to a data storage device or identifiers inherent to a memory medium. For example, the identifier inherent to a data storage device or memory medium is a serial number of a data storage device or a memory medium. (See, e.g., Abstract, column 5, line 66 to column 6, line 27, and column 2, lines 40-45, 52-55).

Neither of Imamura's first identifier or second identifier constitutes manufacture-related information associated with a sending device. Imamura therefore does not disclose "receiving a connection request from a sending device, obtaining manufacture-related information associated with the sending device," as recited in claim 1 and similarly in claims 13, 22, and 32. Imamura does not disclose an access control table having manufacture-related information. Thus, Imamura does not teach "responding to the request in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table," as substantively recited in claim 1 and similarly in independent claims 13, 22, and 32.

U.S. Application Publication No. 2003/0182330 Manley et al.

The published patent application of Manley et al. discloses a system and method for updating a replicated destination file system snapshot with changes in a source file system snapshot, provides an extensible, file system-independent format to transmit a data stream of change data over the network. The format enabled backward compatibility between different versions of applications running on the source and destination through use of discrete header types which, if not recognized by a version of the application are ignored. In addition, the headers, which can carry data, or act as basic headers for follow on data, include expansion space for additional information. As versions of source and destination mirroring applications may differ over time, the format should be able to keep up with the version changes, exhibiting

backward and forward compatibility with earlier and later software versions, respectively. In addition, as improvements become available, the format should allow ready addition of fields and types of data without requiring a radical reorganization of the format's basic structure (e.g. extensibility). (See, e.g., Abstract and paragraph 20).

Manley's replication system does not include "obtaining manufacture-related information associated with a sending device, and responding in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table," as substantively recited in claim 1 and similarly in independent claims 13, 22, and 32.

U.S. Application Publication No. 2003/0028514 Lord et al.

The published patent application of Lord et al. discloses extended attribute caching in a clustered file system. A cluster of computer system nodes share direct read/write access to storage devices via a storage area network using a cluster file system. Version information about subsystems is acquired by a leader node when forming a cluster membership and distributed to all nodes in the cluster to enable proper messaging during operation. Access to files on the storage devices is arbitrated by the cluster file system using tokens. Upon detection of a change in location of the metadata server, client nodes waiting for a token are interrupted to check on the status of at least one of data and node availability. The cluster operating system maintains consistency of a mirrored data volume by automatically ensuring replication of a mirror leg while continuing to accept access requests to the mirrored data volume. Version tags and levels are preferably registered by the various subsystems to indicate version levels for various functions within the subsystem. These tags and levels are transmitted from follower nodes to the CMS leader node during the membership protocol 230 when joining the cluster. The information is aggregated by the CMS leader node and membership delivery 232 includes the version tags and levels for any new node in the cluster. As a result all nodes know the version levels of functions on other nodes before any contact between them is possible so they can properly format messages or execute distributed algorithms. (See, e.g., Abstract and paragraphs 129-131).

Lord's cluster of computer system nodes do not use manufacture-related information to control access. Lord does not show "obtaining manufacture-related information associated with a sending device, and responding to the sending device's request in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table," as substantively recited in claim 1 and similarly in independent claims 13, 22, and 32.

U.S. Application Publication No. 2003/0163457 Yano et al.

The published patent application of Yano et al. discloses a storage system. To efficiently use each of storage physical devices fast in access rate for each data block even where a deviation in access frequency exists within a file, in a storage system comprising a plurality of the storage physical devices, a policy is stored within the storage system in advance with respect to the placement of file's data blocks, and data of each file is evaluated with respect to the policy upon storage of the file's data blocks. A decision as to which storage physical device the corresponding data blocks should be located, is made based on the evaluation result of the policy. The storage system includes a management interface for connecting a management device for managing the storage system and is provided with means for presetting, through the management device connected via the management interface, a policy for judging which one of the storage physical devices should be selected and accessed when the host device accesses the storage system. Further, when a request for the placement of data is made to the storage system from the host device, the storage system is provided with means for evaluating whether the access matches the predetermined policy. When they match each other, it determines a storage physical device for placing data blocks, based on the result of evaluation and locates it therein. Further, the storage system includes means having information managing the correspondence of the logical address used in accessing from the host device to information for specifying each storage physical device in a storage sub-system and to a physical address for the storage physical device and for changing the correspondence thereof. (See, e.g., Abstract and paragraph 6).

Yano stores a policy in a storage system to control selection of physical devices for storing data. Yano's policy does not correspond to manufacture-related information, so Yano

does not show “obtaining manufacture-related information associated with a sending device, and responding to the sending device’s request in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table,” as substantively recited in claim 1 and similarly in independent claims 13, 22, and 32.

U.S. Application Publication No. 2003/0204597 Arakawa et al.

The published patent application of Arakawa et al., discloses a storage system configured to provide a storage area to a host coupled to the storage system includes a first storage device of first type being configured to store data and provide one or more data-storage-related functions. A second storage device of second type is configured to store data and provide one or more data-storage-related functions. A virtual volume provides a storage location and being associated with at least one of the first and second storage devices. A database includes information relating to the one or more data-storage-related functions that the first and second storage devices are configured to perform. A first server is coupled to the first and second storage devices and having access to the database, the first server being configured to access the database in response to a data-storage-related-function request from the host involving at least one of the first and second storage devices. The database is accessed to determine whether or not the at least one of the first and second storage devices is capable of performing the request from the host. The first server further being configured to perform the request if the determination is negative or provide an instruction to the at least one of the first and second storage devices to perform to the request if the determination is positive. Using the various kinds of protocols, the server obtains the various kinds of information from the storage subsystem, and then stores the information in the repository. More specifically, the repository includes the various kinds of information about each storage subsystem, which were exemplified above. Further, the server records, in the repository, information about a vendor name, a model name, a version, a production number, and the like, as device information, which are used for identifying each device connected to the SAN. (See, e.g., Abstract and paragraphs 115 and 134).

Arakawa does not disclose “receiving a connection request from a sending device” and then “obtaining manufacture-related information associated with the sending device.”

Consequently, there is no discussion of “responding in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table, “ as recited in claim 1 and similarly in independent claims 13, 22, and 32. Likewise, Arakawa does not teach or suggest that “subsequent data communication is permitted in the case of a positive response, and subsequent data communication is prevented in the case of a negative response,” as recited in claim 1 and similarly in independent claims 13 and 32.

U.S. Application Publication No. 2003/0225982 Fujita et al.

The published patent application of Fujita et al. discloses the management of data states of storage apparatuses. When a storage apparatus is allocated from a storage pool to a computer, management information written in the storage apparatus is erased if the data state of the storage apparatus is unknown. When the storage apparatus becomes unnecessary and is restored to the storage pool, the management information is also erased. Further, when the storage apparatus is allocated to the computer, a level of confidentiality is set. When the storage apparatus is restored to the storage pool, data in the storage apparatus is automatically erased according to the set level of confidentiality. FIG. 2 shows an access control table used by the storage apparatus for control of access from the computer. The access control table is stored in the shared memory. Registered in the access control table are device identifiers for use in identifying the logical devices of the storage apparatus, storage port identifiers of the storage apparatus for receiving the I/O requests from the computer, channel adapter numbers of the channel adapters provided with storage ports such as the fibre channel port, and computer port identifiers of the computer permitted to access the storage apparatus. (See, Abstract and paragraphs 40 and 42, 86, 87).

Fujita’s access control table does not include manufacture-related information that is used in connection with a request for service. Fujita therefore does not show “receiving a connection request from a sending device” and then “obtaining manufacture-related information associated with the sending device.” Consequently, there is no discussion of “responding in a positive manner or in a negative manner based on comparing that information against manufacture-related information in an access control table, “ as recited in claim 1 and similarly